

also much smaller than for the corresponding month a year ago. Forty-five lives were lost by lightning, as against 130 during the preceding month, and 41 during September, 1898.

Two short periods of thunderstorm activity in the Lake region and Ohio Valley prevailed, viz: On the 5-6th and again on the 7-8th. The storms were quite severe in portions of Ohio on the night of the 5th, and again on the night of the 7th.

Severe local storms occurred in Connecticut on the 26th, and in New Jersey on the 23d and again on the 29th.

WIND.

The maximum wind velocity at each Weather Bureau station for a period of five minutes is given in Table I, which also gives the altitude of Weather Bureau anemometers above ground.

Following are the velocities of 50 miles and over per hour registered during the month:

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Amarillo, Tex	27	80	w.	Mount Tamalpais, Cal.	27	66	nw.
Basseterre, St. Kitts	27	82	sw.	Do.	28	68	nw.
Bismarck, N. Dak.	11	51	nw.	Do.	29	52	nw.
Block Island, R. I.	23	54	e.	Do.	30	55	nw.
Fort Canby, Wash.	23	55	se.	New York, N. Y.	11	30	nw.
Hannibal, Mo.	27	57	w.	Do.	25	34	e.
Huron, S. Dak.	27	56	nw.	Pierre, S. Dak.	31	60	nw.
Mount Tamalpais, Cal..	27	50	n.	Williston, N. Dak.	1	60	nw.

HUMIDITY.

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	78	-4	Missouri Valley	59	-8
Middle Atlantic	78	-1	Northern Slope	54	+1
South Atlantic	78	-3	Middle Slope	54	+4
Florida Peninsula	81	-1	Southern Slope	57	-5
East Gulf	71	-6	Southern Plateau	54	-13
West Gulf	65	-9	Middle Plateau	58	-9
Ohio Valley and Tennessee.	67	-6	Northern Plateau	49	-3
Lower Lake	70	-4	North Pacific Coast	78	-3
Upper Lake	78	+2	Middle Pacific Coast	56	-12
North Dakota	64	-1	South Pacific Coast	67	+2
Upper Mississippi	68	-4			

SUNSHINE AND CLOUDINESS.

The distribution of sunshine is graphically shown on Chart VII, and the numerical values of average daylight cloudiness, both for individual stations and by geographical districts, appear in Table I.

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	4.9	-0.1	Missouri Valley	3.5	-0.5
Middle Atlantic	4.0	-0.8	Northern Slope	3.4	-0.6
South Atlantic	3.5	-1.3	Middle Slope	2.8	-0.4
Florida Peninsula	5.7	+0.2	Southern Slope	2.0	-1.6
East Gulf	2.7	-1.7	Southern Plateau	1.6	-0.7
West Gulf	2.9	-1.4	Middle Plateau	1.8	-0.7
Ohio Valley and Tennessee.	3.8	-0.6	Northern Plateau	2.8	-1.3
Lower Lake	6.0	+1.2	North Pacific Coast	4.0	-0.9
Upper Lake	6.0	+0.9	Middle Pacific Coast	2.7	-0.1
North Dakota	3.5	-0.8	South Pacific Coast	2.0	-0.5
Upper Mississippi	3.9	-0.3			

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table VII, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

Thunderstorms.—Reports of 2,203 thunderstorms were received during the current month as against 2,698 in 1898 and 4,943 during the preceding month.

The dates on which the number of reports of thunderstorms for the whole country were most numerous were: 7th, 258; 8th, 241; 3d, 178; 6th, 151.

Reports were most numerous from: Pennsylvania, 129; Florida, 111; Ohio, 107; Michigan, 104; New Mexico, 102.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz, 14th to 22d.

The greatest number of reports were received for the following dates: 26th, 32; 25th, 27; 2d, 6; 27th, 5.

Reports were most numerous from: Minnesota, 13; Wisconsin, 12; Michigan, 10; Montana and North Dakota, 9.

In Canada.—Auroras were reported as follows: Sydney, 10th; Grand Manan, 25th; Yarmouth, 25th; Father Point, 30th; Quebec, 9th; White River, 26th, 27th; Minnedosa, 25th, 26th, 29th; Qu'Appelle, 8th; Medicine Hat, 1st, 25th, 26th; Prince Albert, 3d, 10th, 11th, 28th, 29th; Battleford, 29th, 30th.

Thunderstorms were reported as follows: St. Johns, 4th; Grand Manan, 3d, 4th; Yarmouth, 4th; Father Point, 3d; Quebec, 3d, 17th; Montreal, 4th, 12th; Toronto, 7th, 11th, 17th, 24th; White River, 2d, 4th, 12th; Ottawa, 18th; Port Stanley, 1st, 5th, 7th, 8th, 24th, 25th; Parry Sound, 5th; Port Arthur, 2d; Winnipeg, 4th; Barkersville, 21st; Minnedosa, 3d; Qu'Appelle, 3d; Medicine Hat, 1st; Swift Current, 1st, 17th; Banff, 12th, 29th; Edmonton, 13th; Kamloops, 12th; Victoria, 29th; Bermuda, 1st, 3d, 4th, 14th; Sable Island, 13th.

DESCRIPTION OF TABLES AND CHARTS.

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Table I gives, for about 130 Weather Bureau stations making two observations daily and for about 20 others making only one observation, the data ordinarily needed for climatological studies, viz, the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and

the departures from normals in the case of pressure, temperature, and precipitation, the total depth of snowfall, and the mean wet-bulb temperatures. The altitudes of the instruments above ground are also given.

Table II gives, for about 2,700 stations occupied by voluntary observers, the highest maximum and the lowest minimum